The Delaware River Turnpike Bridge is the 6,571-ft., 31-span bridge joining the Pennsylvania and New Jersey Turnpike’s across the Delaware River carrying I-276. A full-depth fracture was discovered in the top chord (tension zone) of a 4-span continuous deck truss unit on the Pennsylvania approach on January 20, 2017, resulting in an immediate closure of the bridge.

The bridge is not only a vital link for commuters, but also critical for the movement of commerce. With combined lost revenues in excess of $2M per week between the two turnpike agencies, developing a sound solution that could be quickly implemented was critical. Both agencies agreed that despite the importance to the local and national travelling public, the bridge could not be reopened until both agencies and all their representatives were fully satisfied that the bridge was deemed safe for public use. The work was completed with minimal construction stoppages nor interruptions. A critical lifeline bridge was returned to service in approximately seven weeks’ time.

Michael Baker International’s (Michael Baker) role on the project included emergency field and office support including engineering analysis, design, and plans review. Michael Baker supported the truss repair, on-site operations, and planned and coordinated the non-destructive testing and evaluation of several hundred similar locations in the trusses selected for further examination.